

REMARKS

Reconsideration and withdrawal of the rejection with respect to all of the claims now in the application (i.e., Claims 1-27) is respectfully requested in view of the foregoing amendments and the following remarks.

Initially, in regard to the Examiner's indication that the oath/declaration was defective because the inventors' signatures are not legible, enclosed herewith please find more legible copies of the executed Declarations and Power of Attorney for the Patent Application, which were previously submitted. It is believed that these declarations are clear and the inventors' signatures are legible.

In regard to the objection to the drawings on the grounds that they do not show every feature of the invention specified in the claims, namely the positive/negative tracks on the fabrics, the thermochromic strip, and the flag formed of a shaped memory alloy, Applicant respectfully submits that the positive/negative tracks on the fabrics are shown in Fig. 4, as described in the specification in the description of Fig. 4 on page 4, lines 19-21.

In regard to the thermochromic strip and the flag formed of shaped memory alloy, it is respectfully submitted that these elements need not be shown in the drawings because illustration of these features is not necessary for the understanding of the subject matter of the invention. It is believed that the details of the thermochromic strip and the flag formed of shaped memory alloy are not essential for

proper understanding of the disclosed invention and therefore do not have to be illustrated in the drawings.

In regard to the objection to the drawings on the grounds that they contain faded text/drawings, lines or marks and that the photographs are unclear, enclosed herewith is a replacement sheet of Figs. 3 and 4 in which the shaded portion (10) on Fig. 3 has been removed. Also enclosed herewith is a replacement sheet for Figs. 5-7 which more clearly shows the photographs of the invention.

Turning to the §112 rejection and specifically regarding the rejection of Claims 24 and 25 as being unclear on the grounds that it is unclear how the solenoid or mechanical actuator irreversibly forms a shaped memory alloy due to an electrical stimulus, Applicant submits that it would be clear to a person of ordinary skill in the art how such limitation would work. In particular, the term solenoid covers transducer devices that convert energy into linear motion. It would be clear to a person of ordinary skill in the art that a solenoid or mechanical actuator could be used to move the position of the flag. Shaped memory alloys are also well known as materials that will regain a predetermined shape when subjected to an electrical stimulus. It would be clear to a person of ordinary skill that the change in electrical conductivity detected by the detector could cause an electrical stimulus to stimulate the shaped memory alloy, causing it to change shapes.

In regard to the §112 rejection of Claims 1-27 on the grounds that they are generally narrative and indefinite for failing to conform with the current U.S. practice,

it is submitted that claims are not a literal translation into English from a foreign document and are sufficiently clear. Nevertheless, the claims have been amended to correct certain grammatical and spelling errors so that they are in more proper U.S. form.

In regard to the remaining objections under §112, the claims have been amended to address such rejections.

Turning to the §102 rejection, Applicants submit that Votel does not disclose the feature of "the detector being below the impermeable layer of the shielding cover and above the mattress when the shielding cover is fitted over the mattress or mattress core, to detect body fluid that has passed into or through the cover, the fluid having penetrated the impermeable layer of the shielding cover," as required by in claim 1.

Rather, Votel discloses a drawsheet for assisting in moving, transporting, repositioning and rolling over patients (see col 1, lines 23-25) with integral electrical conductivity sensor to alert staff when the drawsheet itself is soiled, and therefore alerting staff that the drawsheet should be changed (see col 52, lines 18-35). Referring to Votel col 52, lines 19-22 and figures 156 and 157, conductors 2614 and 2616 extend within the absorptive layer 2608 to a logic board 2618, the absorptive layer 2608 being above the impermeable layer 2612 in use. It is clear from the description in Votel that the patient would lie directly on the permeable layer 2606 (it is disclosed at col 51, lines 15-18 that the "permeable layer 2606 may include fabrics

which allow liquids to pass through to absorptive layer 2608 and which impart a sensation of comfort to a patient lying thereon"). The impermeable layer 2612 must therefore lie adjacent a mattress in use. The conductors 2614, 2616 in the absorptive layer 2608 will detect when fluid has been absorbed in the absorptive layer, and therefore alert staff that the drawsheet should be changed. However, in Votel, since the impermeable layer 2612 lies underneath the conductors 2614, 2616 in use, there is no means for detecting if fluid has penetrated through the impermeable layer, and therefore if there has been any "strike-through" to the mattress beneath the impermeable layer.

Nowhere does Votel disclose or even suggest that a detector should be located below the impermeable layer and above a mattress, in order to detect bodily fluid that has penetrated the impermeable layer of the drawsheet. Votel merely teaches that impermeable layer 2612 is 'impermeable to liquids, thus protecting an underlying mattress from fluids originating from a patient disposed thereon' (see col 51, lines 44-46). Votel does not disclose or suggest any means for detecting whether bodily fluids have penetrated through the drawsheet to a mattress beneath. By providing a detector between the impermeable layer and the mattress, as recited by Claim 1, the Applicants have found that they can successfully detect whether body fluid has penetrated through the impermeable layer, to the mattress underneath.

As a result, Applicants submit that Claim 1 is patentable over the disclosure of Votel. Applicants further submit that Claims 2 to 27 are patentable over the disclosure

of Votel at least by virtue of their dependencies.

In regard to the §103, rejection the Examiner has rejected Claims 2-4, 12-13, 18-20, 16, 24-25, 21-23 and 27 as being unpatentable over Votel in view of various other references. Applicants respectfully disagree. These claims are dependent upon, and therefore include all the features of, Claim 1. Applicants submit that Votel does not disclose the feature of “the detector being below the impermeable layer of the shielding cover and above the mattress when the shielding cover is fitted over the mattress or mattress core, to detect body fluid that has passed into or through the cover, the fluid having penetrated the impermeable layer of the shielding cover” as recited in Claim 1. This feature is not disclosed or even suggested in any of the prior art, therefore we submit that the invention of claim 1 is not obvious in light of the prior art. Thus, the various other secondary references fail to correct the crucial deficiencies noted above in regard to Votel.

Finally, Applicant hereby requests a three month extension of time in which to respond to the outstanding Office Action. Credit Card payment in the amount of \$555.00 is enclosed to cover the official fee. Any fee deficiency or overpayment may be charged or credited to Deposit Account No. 50-3990.

In view of the foregoing, it is respectfully submitted that the present invention as set forth in Claims 1-27 is patentable over the cited art and therefore allowance of the aforesaid claims at an early date is earnestly solicited.

Respectfully submitted,

BAIN, ET AL.



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Enclosures: Copies of Declaration and Power of Attorney  
Two sheets of Replacement Drawings  
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